

ABSTRACT OF THE DISCLOSURE

A method of manufacturing a synthesis gas containing hydrogen and carbon monoxide comprises steps of removing only hydrogen sulfide from a natural gas containing hydrogen sulfide and carbon dioxide by 5 permitting the natural gas to pass through a hydrogen sulfide-removing device filled with a hydrogen sulfide absorbent, adding carbon dioxide and steam to the natural gas which the hydrogen sulfide has been removed 10 to prepare a mixed gas, and feeding the mixed gas into a reaction tube of a reformer, thereby permitting mainly a steam reforming reaction to take place in the mixed gas. This method enables hydrogen sulfide in natural gas to be removed while permitting the carbon 15 dioxide of natural gas to be effectively utilized, thereby reducing the quantity of carbon dioxide to be added to the natural gas to be transferred to the reformer.